

**DRAFT SCREENING SITE INVESTIGATION  
FOR THE  
MORGAN SMELTERS INCORPORATED SITE  
HEDLEY STREET EAST OF RICHMOND STREET  
PHILADELPHIA, PENNSYLVANIA  
ECKEL SITE NUMBER 63**

Prepared for

U.S. Environmental Protection Agency Region 3  
Hazardous Site Cleanup Division  
1650 Arch Street  
Philadelphia, PA 19103

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## **1.0 INTRODUCTION**

Under Remedial Action Contract (RAC) No. 68-S7-3002, Work Assignment No. 048-PAPA-03ZZ, U.S. Environmental Protection Agency (EPA) Region 3 tasked Tetra Tech, Inc. (Tt), to assist EPA Region 3 in the assessment of properties suspected to have been former lead smelter foundries. Tt subcontracted completion of this work assignment to Tetra Tech EM Inc. (Tetra Tech).

Former lead smelter sites nationwide were identified in an April 2001 article published in the American Journal of Public Health by Eckel, and others (Eckel study) (Reference [Ref.] 1). The majority of these lead smelters operated prior to 1964 and closed before the current environmental regulations were instituted. As part of the Eckel study, soil samples were collected from several of the identified former lead smelter properties. Results from the analysis of these soil samples indicated that concentrations of lead exceeded EPA's recommended screening level for lead in residential soils. The results of the Eckel study indicate that the air disposition of lead into soils from the former smelter operations may present an ongoing public health concern due to exposure of residential populations, especially children, located in the vicinity of these former lead smelters, to soils containing elevated concentrations of lead (Refs. 1, 2, and 3).

The Eckel study identified 77 properties that may have been formerly used as lead smelters within EPA Region 3 (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia). EPA Region 3 is currently investigating these 77 properties. The objective of EPA's investigation of these properties is to (1) determine the potential for lead-contaminated soil to be present at the former lead smelter site or nearby properties (2) identify any populations that may be at risk to exposure to this soil, and (3) determine if soil sampling is warranted at any of these sites or nearby properties.

The following activities were completed as part of the initial screening investigation of each of these former lead smelter sites: (1) verify the former lead smelter address listed in the Eckel

study through historical Sanborn fire insurance maps, tax parcel information, and/or contacting local agencies, (2) determine if the site is listed in EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, (3) determine through census information and existing maps the number of schools, daycare centers or recreational parks that exist near the former lead smelter site, (4) determine the population residing within a 4-mile radius of the site, (5) conduct a windshield reconnaissance of the site and surrounding area to document the current land use, identify any exposed soil and verify the existence of any schools, daycare centers or parks in the immediate area, and (6) review all information acquired to determine if the collection and analysis of soil samples is warranted at the site or at any nearby property.

This report summarizes the findings of the tasks outlined above for the former lead smelter known as the Morgan Smelters Incorporated site located at Hedley Street east of Richmond Street, Philadelphia, Pennsylvania, 19137. Each former smelter property was given a number in Eckel's study. The Eckel study number for this site is 63 (Ref. 1).

## **2.0 SITE LOCATION**

The former Morgan Smelters Incorporated facility was located at Hedley Street east of Richmond Street, Philadelphia, Pennsylvania, 19137. The geographic coordinates of the former Morgan Smelters Incorporated facility are 39.995085 north latitude and 75.075784 west longitude on the Camden, Pennsylvania-New Jersey and Frankford, Pennsylvania-New Jersey Quadrangles, 7.5 minute series, United States Geological Survey topographic maps (see Appendix A, Figure 1). The site is not currently listed in EPA's CERCLIS database (Ref. 4). An aerial photograph of the vicinity of the former lead smelter site has been included in Appendix A, Figure 2. This aerial photograph reveals the exposed soils and any identified areas of potential concern such as schools, daycare centers, or parks located within a half-mile radius of the site.

### **3.0 SITE OBSERVATIONS**

On December 16, 2005, Tetra Tech completed a non-sampling windshield reconnaissance of the Morgan Smelters Incorporated site and surrounding area. A photographic record of the current site conditions is included in Appendix B. Figure 3, shows the current layout of the site and surrounding area as observed during Tetra Tech's site reconnaissance. The following observations were recorded:

- The exact location of the former lead smelter is not known. This area of Philadelphia is characterized by mixed development including commercial, industrial and residential.
- Most Holy Redeemer Cemetery is located one-quarter mile northwest of the vicinity of the site.
- The Delaware River, a tributary to the Delaware Bay, is one-quarter mile southeast of the vicinity of the former lead smelter.
- Numerous areas of exposed soil are located in the vicinity of the site. A large unidentified park is located to the east, baseball fields are located to the southwest, and the Most Holy Redeemer Cemetery is located adjacent to the site vicinity on the northwest. Residential properties surrounding the commercial/industrial vicinity of the site contain small yards.
- No schools or daycare facilities were identified in the immediate vicinity of the site.

#### 4.0 POTENTIAL TARGETS

Potential targets identified that may be exposed to lead-contaminated soils remaining in the vicinity of the former Morgan Smelters Incorporated site include the nearby residential population. The population within a 4-mile radius of the site is summarized in the table below (Ref. 5).

**Population within a Four-mile Radius of the Site**

<b>Distance Ring (miles)</b>	<b>Population (number of persons)</b>
0.0 to 0.25	1,575
0.25 to 0.5	2,202
0.5 to 1.0	6,094
1.0 to 2.0	78,991
2.0 to 3.0	154,352
3.0 to 4.0	247,538

Source: U.S. Department of Commerce. Landview V Environmental Mapping Software based on the Bureau of Census 2000 Population Data. December 15, 2005.

No schools or daycare facilities were identified in the immediate vicinity of the site. The Most Holy Redeemer Cemetery is located adjacent to the site on the northwest. Southwest of the former lead smelter is a set of baseball fields. A large unidentified park is located east of the vicinity of the site. No schools have been identified within one-half mile of the site.

## **5.0 FINDINGS AND RECOMMENDATIONS**

The property is located in a mixed commercial, industrial, residential area of Philadelphia. Exposed soils were observed in areas directly surrounding the site. To determine if there is a threat to the residential population located in the vicinity of the former lead smelter site, it is recommended that soil samples be collected from exposed soils and analyzed for lead levels.

## REFERENCES

1. Eckel, W.P., Rabinowitz, M.B., Foster, G.D. American Journal of Public Health. "Discovering Unrecognized Lead-Smelting Sites by Historical Methods". April 2001.
2. Pennsylvania Department of Health. Suspected Former Lead Smelter Sites: A Potential Risk Factor for Childhood Lead Poisoning. August 2004.
3. U.S. Environmental Protection Agency (EPA). Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. OSWER Directive 9355.4-12. July 14, 1994.
4. U.S. EPA. Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) database. On-Line Address: <http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm>
5. U.S. Census Bureau. State and County Quick Facts. Accessed On-Line on December 15, 2005. On-Line Address: [quickfacts.census.gov/qfd/states/42.html](http://quickfacts.census.gov/qfd/states/42.html).



## **Appendix A**

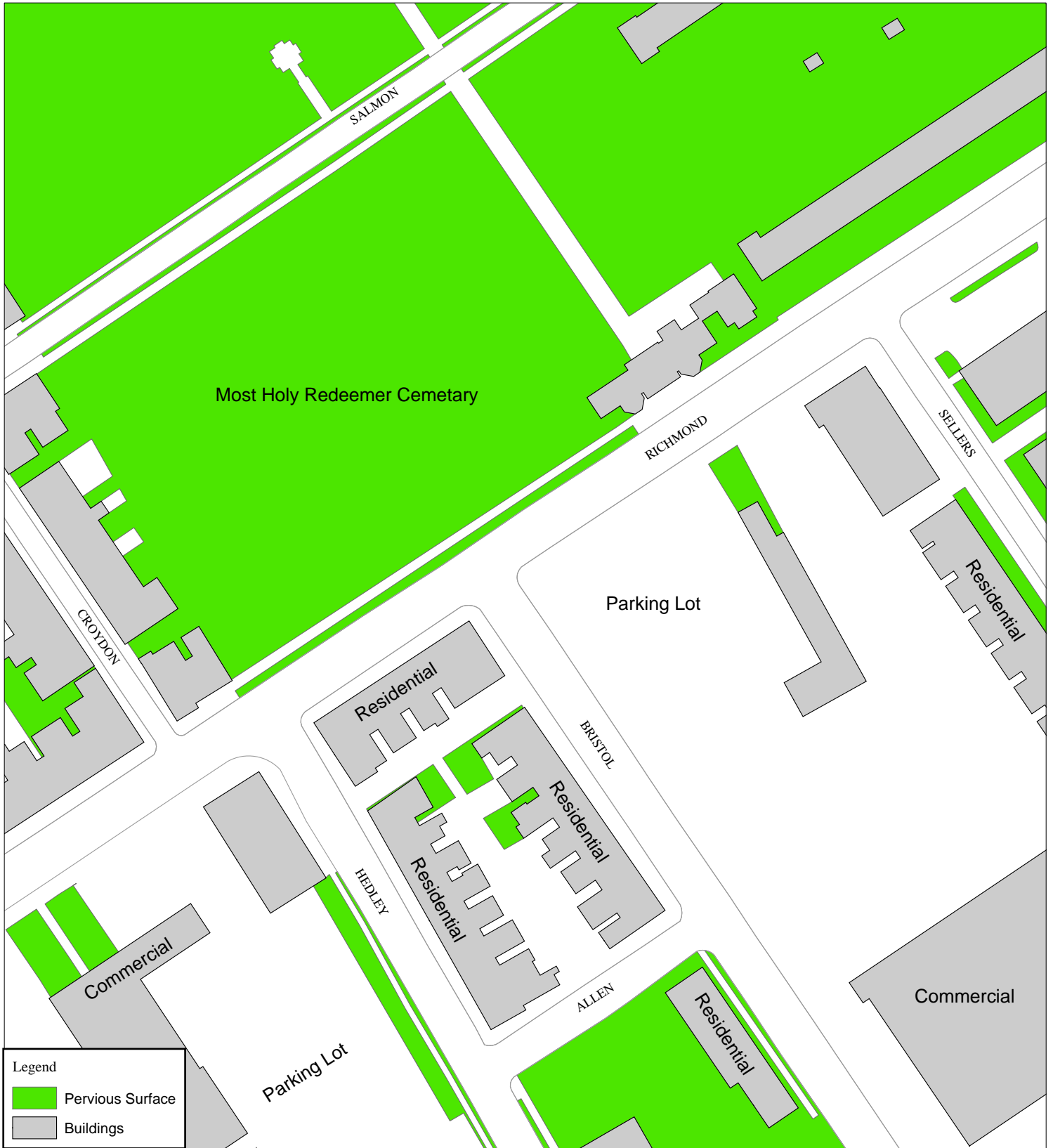
### **Figures**







<p>Legend</p> <ul style="list-style-type: none"> <li> Approximate Site Location</li> <li> School</li> <li> 0.5-Mile Radius</li> <li> Parks</li> </ul> <p>0 400 800 Feet</p> <p>Scale in Feet</p>	<p>Morgan Smelters Inc. Hedley Street East of Richmond Street Philadelphia, Pennsylvania Eckel Site No. 63</p>	
	<p><b>Figure 2</b> Aerial Photograph</p> <p>Source: Modified from U.S. Department of Agriculture, Service Center Agencies, and ESRI, 2005</p>	



<p>0 50 100 Feet</p> <p>Scale in Feet</p>	<p>Morgan Smelters Inc. Hedley Street East of Richmond Street Philadelphia, Pennsylvania Eckel Site No. 63</p>	
	<p><b>Figure 3</b> Site Layout Map</p> <p>Source: Modified from the City of Philadelphia 1996, 2000, and 2003.</p>	



**Appendix B**  
**Photographic Documentation**



## *Photographic Documentation*

**Site Name:** Morgan Smelters Incorporated - Eckel Number 63      **Prepared by:** Tetra Tech EM Inc.

**Location:** Hedley Street East of Richmond Street, Philadelphia, Pennsylvania      **Photographer:** [REDACTED]

### **Photograph No. 1**

**Photograph Date:**  
September 7, 2005

**Description:** View facing southwest on Richmond Street showing Billing Freight System on the south side of Richmond Street and residential buildings on the north side.



### **Photograph No. 2**

**Photograph Date:**  
September 7, 2005

**Description:** View of Billing Freight company.





## *Photographic Documentation*

**Site Name:** Morgan Smelters Incorporated - Eckel Number 63

**Prepared by:** Tetra Tech EM Inc.

**Location:** Hedley Street East of Richmond Street, Philadelphia, Pennsylvania

**Photographer:** [REDACTED]

### **Photograph No. 3**

**Photograph Date:**  
September 7, 2005

**Description:** View of Lensco, which is located at 2917 East Hedley Street.

